

2018 (*see attachments #2 and #3*).

On Monday, January 29 and Tuesday, January 30, 2018, I returned to the THOMAS fire site to view SCE crews lower and remove power line equipment (*see attachment #55*).

On Tuesday, May 29 through May 31, 2018, Investigators from CAL FIRE and VCFD met with Jim NOLT, Professional Engineer (PE). The IT utilized NOLT on several occasions throughout the course of the Thomas fire investigation to evaluate the electrical system within the OFA and GOA. We reviewed SCE data that was submitted to us on April 6, 2018, NOLT created a timeline of events that occurred associated with the Castro circuit on Monday, December 4, 2017.

On Wednesday, October 24, 2018, we received a report created by NOLT (*see attachment #63*). The IT reviewed NOLT's report and concluded it further corroborated the IT's final hypothesis.

On Saturday, November 17, 2018, we added documents received per our request from SCE dated Friday, October 26, 2018. The response letter and documents from SCE are in regards to the Thomas fire investigation report are pertaining to meter No. 254000-004308 and 222-931684. We still have yet to receive the data requested in its entirety (*see attachment #64*).

## OPINIONS & CONCLUSIONS:

The following opinions and conclusions were based on supporting documentation, supplemental reports, statements made to investigators, audio/video recordings, CAD reports obtained from dispatch centers, and evidence found while conducting the origin and cause investigation.

Skies were clear with no thunderhead or cloud build-up observed. There was no evidence located within the GOA consistent with lightning strikes or fire resulting from a lightning strike. A lightning detection map was printed and confirmed there was no recent lightning activity in the area. Based upon the weather data, I eliminated a lightning caused fire (*see attachment #43*).

1 There are no campgrounds in the area where the GOA is located. The area is  
2 not typically used for camping and did not have campfire rings, campsites, piled  
3 material typically associated with a campfire, or indications of any campfires near  
4 the GOA. The fire occurred on private property. DOLLAR told the IT he never has  
5 fires on his property of any type. Based upon the lack of the above items, I  
6 eliminated a campfire caused fire.

7 The IT did not observe or locate any cigarette butts or other smoking  
8 paraphernalia within the GOA. All people who had access to the DOLLAR ranch the  
9 day of the THOMAS fire were interviewed and stated they do not smoke. Based  
10 upon the above facts the IT eliminated smoking as a potential cause of the fire.

11 Ventura County APCD had a burn ban in effect which prohibited debris burning.  
12 There were no burn barrels, piles of trash, or signs of burn barrels being used to  
13 conduct debris burning located near the GOA. Additionally, the IT did not observe  
14 any of the previously mentioned items during a perimeter search of the area,  
15 eliminating debris burning as a potential cause of this fire.

16 There was no evidence of items typically associated with an intentionally set fire  
17 was observed/located within the GOA. The inaccessibility to the DOLLAR ranch,  
18 which is controlled by locked gates and fences is not consistent with that of a person  
19 who commits the crime of arson. Additionally, all persons who had access to the  
20 DOLLAR ranch the day of the THOMAS fire were vetted, and if needed, alibis were  
21 corroborated eliminating incendiary as a potential cause of the fire.

22 There was no indication of equipment use in the GOA prior to the IT arriving to  
23 the incident. During the investigation, the IT examined the GOA and observed no  
24 signs of motorized equipment recently used within the general vicinity. The IT did  
25 not observe any disturbed soils, or any area where equipment had been used. The  
26 GOA is not located along public roads. The nearest road is an unmaintained paved  
27 road that traverses through the DOLLAR property. The only people that have  
28 access to the DOLLAR property is the DOLLAR family, oil lease representatives, a  
29 cattle rancher (Robert FROST) who leases a portion of the DOLLAR ranch, and a  
30 radio station representative (Richard RUDMAN) who maintains an antenna on the

1 DOLLAR property. Vehicles operating on the DOLLAR ranch the day of the  
2 THOMAS fire were all evaluated/inspected by the IT. The IT obtained current  
3 registration and insurance information for all vehicles in question. The last vehicle  
4 on the DOLLAR ranch the day of the fire was owned and operated by RUDMAN  
5 who exited the lower gate toward Highway 150 approximately one hour prior to the  
6 fire. There was no mention by DOLLAR of any vehicles in and or around the  
7 property at the time the THOMAS fire started. Additionally, the IT saw no signs of  
8 Off Highway Vehicle (OHV) use in the area. No catalytic converter particulates were  
9 located within the GOA. Based upon the above facts, I eliminated equipment as a  
10 potential cause of the subject fire.

11 There are no railroads or railways within Anlauf Canyon, therefore I eliminated  
12 railroad equipment as a cause of the subject fire.

13 There were no toys, forts, or evidence of any activities associated with children  
14 playing with fire near the GOA. The only known juveniles in the area were at the  
15 KOA campground located approximately one and one half miles southwest of the  
16 GOA. The DOLLAR ranch is remote and has locked gates and fencing at all access  
17 points to the property. Based on the above facts playing with fire was eliminated as  
18 the cause of the fire.

19 The County of Ventura has a strict ordinance not allowing the use of fireworks  
20 within the County. No witnesses reported seeing, or hearing any indication of the  
21 use of fireworks. The area where the fire occurred is on private property and is not  
22 open to the public. Additionally, no persons who had access to the DOLLAR ranch  
23 the day of the THOMAS fire observed anyone lighting fireworks or heard sounds  
24 typically associated with use of fireworks. During the examination of the GOA, no  
25 remnants of fireworks were located. Based upon the above facts, fireworks were  
26 eliminated as a potential cause of the fire.

27 No signs of cutting, welding or grinding of metal was noted during the course of  
28 the investigation. Therefore, I eliminated this as a potential cause of the fire.

29 There were no reports of anyone engaging in recreational shooting activities prior  
30 to the fire. DOLLAR does have a shooting area established on his property, but

1 DOLLAR told the IT nobody has utilized the shooting area for two months. All  
2 people who had access to the DOLLAR ranch were interviewed and stated they did  
3 not hear or witness anyone engaged in recreational shooting. Therefore, I  
4 eliminated shooting as a potential cause of the fire.

5 During the examination of the GOA, the IT did not locate any broken glass or  
6 glass bottles. The fire occurred approximately one and a half hours after sundown.  
7 Based upon these facts glass refraction was eliminated a caused of the fire.

8 Spontaneous combustion was excluded as a potential cause. No evidence of  
9 mulch or organic material was located within the GOA that had the ability to  
10 spontaneously combust. There was no evidence of mulch or organic material piles  
11 hay or grass in the GOA. Spontaneous combustion was eliminated a cause of the  
12 fire.

13 The Timber Canyon Lease owned and operated by CCC was located along the  
14 east perimeter of the OFA. A flare stack was located within the Timber Canyon  
15 lease, approximately three quarters of mile from the perimeter of the GOA. The IT  
16 did not observe any indications of a malfunction in, on or immediately around the  
17 flare stack. The IT obtained security video footage revealing the flare stack was not  
18 actively burning at the time the THOMAS fire started (*see attachment #3*). The IT  
19 did observe a fire burning within the CCC compressor site. Interviews with oil field  
20 professionals and observed burn patterns indicate this fire was secondary to the  
21 THOMAS fire and contained to the compressor site. The IT determined the cause  
22 of the compressor site fire was a result of ember cast from the THOMAS fire that  
23 ignited the natural gas. Based on the above facts, I was able to eliminate flare  
24 stacks or a fire originating within the oil facility as a potential cause of the THOMAS  
25 fire.

26 Due to portions of the DOLLAR ranch being utilized as cattle grazing land, the IT  
27 evaluated fencing in the OFA and GOA. The IT did not locate or observe any  
28 electrical fencing, and noted only barbed wire fencing on subject property.

29 Therefore I eliminated electric fences as a potential cause of the fire.  
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1 My experience and knowledge of conducting fire investigations, includes  
2 instances where power lines producing heat/sparks in a receptive fuel bed, has the  
3 potential for igniting a low intensity, slow developing incipient fire dependent on  
4 wind. Weather conditions and low fuel moistures contributed to the ignition and  
5 rapid extension of the THOMAS fire. During the course of the investigation, the IT  
6 collected many pieces of evidence/data substantiating the determination of an  
7 electrical event. The IT utilized the collected data to triangulate the multiple arc  
8 flashes as well as the fire during its initial growth.

9 The facts and circumstances revealed during the course of the investigation  
10 indicate the fire was caused by a phase to phase contact within a receptive fuel bed.  
11 The IT's O&C, Intel, collection and evaluation of evidence concluded that the power  
12 lines owned and operated by SCE were the cause of the THOMAS fire (see  
13 *attachment #2 and #3*).

14 Based on my training, knowledge, experience, observations at scene,  
15 consultation with other fire investigators, expert opinions, data analysis and the  
16 elimination of other causes through the scientific methodology, I determined the fire  
17 occurred when a phase to phase contact arced ejecting molten metal particles onto  
18 dry ground vegetation.

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11/18/18

26  
27 Signature

Date

28 **Christine SAQUI**

29 **Fire/Arson Investigator**

30 **Ventura County Fire Department**